

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims

1-196 (Cancelled).

197 (Currently Amended). A device for arraying a plurality of cells into discrete and predetermined locations for further experimentation, said device comprising a substrate having an essentially flat surface, wherein a plurality of magnets are contained in said substrate, wherein said plurality of magnets are arrayed in said substrate such that each magnet defines a localized magnetic field gradient to define a magnetic area, wherein said magnetic area is situated on the surface of the substrate in a predetermined location discrete from other magnetic areas to provide a plurality of discrete magnetic areas, wherein the plurality of magnetic areas defined by said plurality of magnets are disposed in a two-dimensional array on the substrate, wherein said localized magnetic field gradient immobilize one to about five cells within said each of said plurality of magnetic areas, wherein said cells are associated with magnetic material at the time that said cells are immobilized within said plurality of magnetic areas.

198 (Canceled).

199 (Original). The device of claim 197 wherein said cells are hybridoma cells.

200 (Original). The device of claim 197 wherein the substrate is fabricated from a material selected from the group consisting of glass, urethane, rubber, molded plastic, polymethylmethacrylate, polycarbonate, polytetrafluoroethylene, polyvinylchloride, polydimethylsiloxane, and polysulfone.

201 (Canceled).

202 (Previously Presented). The device of claim 197 further comprising a layer on top of said substrate wherein said layer has micro-gaps positioned over said magnetic areas.

203 (Previously Presented). The device of claim 197 further comprising a cell isolation device, wherein said cell isolation device comprises a membrane containing a plurality of wells that match the plurality of the magnetic areas, such that when said cell isolation device is placed on said substrate, said cell isolation device is capable of isolating said one to about 5 cells immobilized in one of said plurality of magnetic areas from other of said cells immobilized in said other of said plurality of magnetic areas arrayed within the cell isolation device.

204 (Currently Amended). The device of claim 203, wherein the wells of the cell isolation device have are micro through-holes, wherein the micro through-holes are defined by inner walls of the membrane.

205 (Currently Amended). The device of claim 204, wherein the ~~micro through-holes device~~ further comprise a semi-permeable membrane opposite the substrate, wherein ~~the said semi-permeable~~ membrane restricts cell movement between wells and is permeable to fluid.

206 (Previously Presented). The device of claim 205 wherein at least one of the walls of the micro through-holes are canted or perpendicular to the substrate.

207 (Currently amended). The device of claim 203, wherein said plurality of magnetic areas further comprises immobilized cells ~~associated with said magnetic material~~, such that when the cell isolation device is placed on said substrate, said cells are capable of being transferred from said plurality of magnetic areas to said cell isolation device, and when the substrate is removed, the cells remain in the cell isolation device.

208 (Previously Presented). The device of claim 207 wherein said cells are capable of being transferred from said plurality of magnetic areas to said cell isolation device by centrifugal force.

209 (Original). The device of claim 197 wherein the substrate is coated with a hydrophobic agent.

210 (Original). The device of claim 209 wherein the hydrophobic agent is selected from the

group consisting of teflon, perfluorinated plastic, polyethylene glycol, ethylene oxide-terminated trichlorosilane, and hydrophobic alkyltrichlorosilane.

211 (Original). The device of claim 197 wherein the substrate is coated with an anti-coagulant.

212 (Original). The device of claim 211 wherein the anti-coagulant is selected from the group consisting of heparin, heparin fragments, tissue-type plasminogen activator (tPA), urokinase (uPA), Hirudan, albumin, anti-platelet receptor GPIB antibodies, anti-platelet receptor GPIIb/IIIa antibodies, and anti-von Willebrand Factor (vWF) antibodies.

213 (Previously Presented). The device of claim 197 wherein at least one of the magnets is a permanent magnet.

214 (Previously Presented). The device of claim 197 wherein at least one of the magnets is made of highly-magnetically-permeable material.